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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,604	09/26/2003	Mathilde Benveniste	AVA04-01	3701

51038 7590 07/26/2010

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EXAMINER	
CASCA, FRED A	

ART UNIT	PAPER NUMBER
2617	

NOTIFICATION DATE	DELIVERY MODE
07/26/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docket@chapin-ip-law.com

Office Action Summary	Application No.	Applicant(s)	
	10/672,604	BENVENISTE, MATHILDE	
	Examiner	Art Unit	
	FRED A. CASCA	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 February 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-10,12-14,16-19 and 21-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3, 5-10, 12-14, 16-19, and 21-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on ____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 3, 5-7, 12, 14 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sherman (US 2003/0161340 A1) in view of Mansfield et al (US 6,301249 B1) and further in view of Takabatake et al (US 2004/0085945 A1).

Referring to claim 1, Sherman discloses an apparatus (figure 1) comprising a receiver for receiving a first frame via a shared-communications channel (figures 1-2C, and paragraphs 33-36, 38, and 41-43, "MS101", "wireless network", "frame 210"); and

a processor for generating a second frame that comprises both a data payload and an acknowledgement of the receipt of said first frame (figures 1-2C and paragraphs 5, 8, 28-31 and 40, "A frame sent from the STA to the PC may include an acknowledgment of a data frame just received from the PC", "Acknowledgements and polls may be "piggybacked" on data frames, permitting a wide variety of allowed frame sequences", "Correct reception of RR frames received during a CCI is acknowledged in the next transmitted CC frame", note that a second and subsequent other frames are generated that comprise data payload piggybacked with an ACK, and a processor inherently exists that generates such frames).

Sherman does not specifically disclose following a first frame, subsequent frames include an acknowledgement for frames requiring an acknowledgement as well as an acknowledgement for frames not requiring an acknowledgement.

Mansfield disclose following a first frame, subsequent frames include an acknowledgement (Figure 1, and col. 1, lines 44-45, "stop and wait", note that in stop and wait ARQ, following a first frame subsequent frames include an acknowledgement) for frames requiring an acknowledgement (Fig. 1, note that all frames that require an ACK is provided with an ACK and Fig. 2, note that for frames not requiring an ACK, a NACK acknowledgement is provided).

It would have obvious to one of the ordinary skill in the art at the time of invention to modify the system of Sherman as claimed by incorporating the teachings of Mansfield for the purpose of providing an efficient communication system.

Sherman does not disclose an acknowledgement for frames not requiring an acknowledgement.

Takabatake discloses sending an acknowledgment for frames not requiring an acknowledgement (Par. 105).

It would have been obvious to a person of ordinary skill in the at the time of invention to modify the above combination in the format claimed for the purpose of providing an efficient communication system.

Claim 12 recites features analogous to the features of claim 1 (as rejected above). Thus, the combination of Sherman/Mansfield/Chow discloses all elements of claim 12 (please see the rejection of claim 1 above).

Referring to claims 3, the combo of Sherman/Mansfield/Takabatake discloses the apparatus and method of claim 1 and further discloses a transmitter for transmitting the second frame via the shared-communications channel (Sherman, 1-2C and paragraphs 5, 8, 28-31).

Referring to claims 5, the combo of Sherman/Mansfield/Takabatake discloses the apparatus of claim 1 further comprising a host interface for receiving the data payload from the host computer (figures 1-2C and paragraphs 5, 8, 28-31).

Referring to claims 6 and 16, the combo of Sherman/Mansfield/Takabatake discloses the apparatus and method of claims 1 and 12 and further disclose the second frame also comprises a poll (figures 1-2C and paragraphs 5, 8, 28-31 and 40).

Referring to claims 7 and 17, the combo of ***Sherman/Mansfield/Takabatake*** discloses the apparatus and method of claims 1 and 12, and further disclose the first frame comprises an acknowledgement of the receipt of the third frame and second frame comprises an acknowledgement (figures 1-2C and paragraphs 5, 8, 28-31 and 40, note that acknowledgements can be piggybacked to any data frame to acknowledge the receipt of any previous frames).

Referring to claim 14, the combo of Sherman/Mansfield/Takabatake discloses the method of claims 12 and further disclose transmitting via said shared communication channel said first frame after said receiving (Sherman, figures 1-2C and paragraphs 5, 8, 28-31).

3. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sherman (US 2003/0161340 A1) in view of Mansfield et al (US 6301249 B1), in view of Takabatake (US 20040085945 A1)) and still further in view of well known prior art (MPEP 2144.03).

Referring to claim 23, the combo of Sherman/Mansfield/Takabatake discloses apparatus of claims 1.

The combo fails to disclose said processor is also for one of the group consisting of coding at least one bit of said second frame, compressing at least one bit of said second frame, filtering at least one bit of said second frame and performing an application-specific operation on at least one bit of said second frame.

The examiner takes official notice of the fact that the concepts of coding (e.g., spreading, encrypting), compressing, filtering and performing application specific operations are well known in the art.

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the combination as claimed by incorporating the teachings of prior art for the purpose of providing a more secure communication apparatus.

4. Claims 2 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sherman (US Pub. No. 2003/0161340 A1) in view of Mansfield et al (US 6301249 B1) in view of

Takabatake (US 20040085945) and further in view of Chintada et al (US Pub. No. 2002/0118667 A1).

Sherman/Mansfield/Takabatake

Referring to claims 2 and 13, the combo of Sherman/Mansfield/Takabatake

discloses the apparatus and method of claims 1 and 12.

The combo does not specifically disclose the processor is also encrypting at least one bit of said second frame.

Chintada discloses encrypting data in a frame (paragraph 35).

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the combo by incorporating the teachings of Chintada for the purpose of creating a secure communication system.

Claims 8, 10, 18, and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sherman (US Pub. No. 2003/0161340 A1) in view of Takabatake (US 20040085945 A1), further in view of Dickson (US Pub. No. 2004/0037320 A1), and further in view of Mansfield et al (US 6301249 B1)

Referring to claim 8, Sherman discloses an apparatus (figure 1) comprising:

(i) a first station (paragraph 5, "Hybrid Coordinator (HC)") for:

(a) transmitting a first frame comprising a first poll to a second station (figures 1-2C and paragraph 5, "The HC generally grants the use of medium to a STA by polling it"); and

(b) transmitting a second frame comprising a first acknowledgement and a second poll to said second station (figures 1-2C and paragraphs 5, 8, 28-31, 33-38, "protocols provide centralized control of the wireless media during specified periods of time", "IEEE 802.11 standard defines over-the-air protocols necessary to support", "a requesting STA may transmit one frame for each CF-POLL received. The STA responds with a null data frame if there is no traffic to send", "A frame sent from the STA to the PC may include an acknowledgement of a data frame", "The PC may use a minimal spacing of SIFS between frame to a STA, a responding frame includes an acknowledgement using a SIFS interval between the data and acknowledgement", "Acknowledgement and polls may be "piggybacked" on data frames, permitting a wide variety of sequences", note that in a contention-free protocol e.g., 802.11 standards a second frame comprising an ACK and a second poll is inherent); and

(ii) said second station for:

(a) generating said third frame comprising a data payload and a second acknowledgement (figures 1-2C and paragraphs 5, 8, 28-31, 33-38, note that in a contention-free protocol system once a channel is assigned to a portable host and the portable host starts transmitting data, the data and acknowledgements are inherently transmitted to a controlling device, e.g., the HC via a third frame. Thus, a third frame is inherently generated); and

(b) transmitting said third frame to said first station (figures 1-2C and paragraphs 5, 8, 28-31, 33-38, note that in a contention-free protocol system once a channel is assigned to a portable host and the portable host starts transmitting data, the data and acknowledgements are inherently transmitted to a controlling device, e.g., the HC via a third frame. Thus, a third frame is inherently generated and transmitted).

Sherman does not specifically disclose the second frame is available before a third frame is transmitted, third frame is generated before transmitting of the first frame, and third frame is available before said transmitting of said second frame.

Dickson discloses transmission frames can be generated beforehand and used as needed (paragraphs 32-33, and 91, "transmission frames can be generated before all of the data frames to be bundled have been received")

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the apparatus of Sherman by incorporating the teachings of Dickson for the purpose of providing an efficient communications system where delay is prevented since frames are generated in advance.

Sherman does not specifically disclose following a first frame, subsequent frames include an acknowledgement for frames requiring an acknowledgement as well as an acknowledgement for frames not requiring an acknowledgement.

Mansfield disclose following a first frame, subsequent frames include an acknowledgement (Figure 1, and col. 1, lines 44-45, "stop and wait", note that in stop and wait ARQ, following a first frame subsequent frames include an acknowledgement) for frames requiring an acknowledgement (Fig. 1, note that all frames that require an ACK is provided with an ACK) as well as an acknowledgement for frames not requiring an acknowledgement (Fig. 2, note that for frames not requiring an ACK, a NACK acknowledgement is provided).

It would have obvious to one of the ordinary skill in the art at the time of invention to modify the system of Sherman as claimed by incorporating the teachings of Mansfield for the purpose of providing an efficient communication system.

Sherman does not disclose an acknowledgement for frames not requiring an acknowledgement.

Takabatake discloses sending an acknowledgment for frames not requiring an acknowledgement (Par. 105).

It would have been obvious to a person of ordinary skill in the at the time of invention to modify the above combination in the format claimed for the purpose of providing an efficient communication system.

Referring to claim 18, claim 18 defines a communication method reciting features analogous to the features of the communication apparatus defined by claim 8 (as rejected above). Thus, the combinations of Sherman/Dickson/Mansfield/Takabatake disclose all elements of claim 18 (please see the rejection of claim 8 above).

Referring to claim 10, the combination of Sherman/Dickson/Mansfield/Takabatake discloses the apparatus of claim 8 and further disclose a host computer for generating said data payload (Sherman, figures 1-2C and paragraphs 5, 8, 28-31, 33-38, note that frames are inherently generated by a computer).

Referring to claim 21, the combinations of Sherman/Dickson/Mansfield/Takabatake disclose the method of claim 18 and further disclose transferring data payload from a host computer to the second station (Sherman, Figure 1).

Referring to claim 22, the combinations of Sherman/Dickson/Mansfield/Takabatake disclose the method of claim 18 and further disclose the second frame also comprises data (Sherman, figures 1-2C and paragraphs 5, 8, 28-31, 33-38).

5. Claims 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sherman (US Pub. No. 2003/0161340 A1) in view of Dickson (US (US Pub. No. 2004/0037320 A1) further in view of Takabatake et al (US 2004/0085945), further in view of Mansfield et al (US 6301249 B1), and further in view of well known prior art (MPEP 2144.03).

Referring to claim 24, the combo of Sherman/Dickson/Mansfield/Takabatake discloses apparatus of claims 1.

The combo fails to disclose said processor is also for one of the group consisting of coding at least one bit of said second frame, compressing at least one bit of said second frame, filtering at least one bit of said second frame and performing an application-specific operation on at least one bit of said second frame.

The examiner takes official notice of the fact that the concepts of coding (e.g., spreading, encrypting), compressing, filtering and performing application specific operations are well known in the art.

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the combination as claimed by incorporating the teachings of prior art for the purpose of providing a more secure communication apparatus.

6. Claims 9 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sherman (US Pub. No. 2003/0161340 A1) in view of Dickson (US Pub. No. 2004/0037320 A1), further in view of Takdabatake (US 2004/0085945), further in view of Mansfield et al (US 6301249 B1), and further in view of Chintada et al (US Pub. No. 2002/0118667 A1).

Referring to claims 9 and 19, the combinations of herman/Dickson/Mansfield/Takabatake disclose the apparatus and method of claims 8 and 18.

The combination does not disclose encrypting at least one bit of said third frame before said transmitting of said first frame.

Chintada discloses encrypting data in a frame (paragraph 35).

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the apparatus and method of Sherman/Dickson/Mansfield by incorporating the teachings of Chintada for the purpose of creating a secure communication system.

7. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sherman (US 2003/0161340 A1) in view of Mansfield et al (US 6301249 B1) further in view of Takabatake (US 2004/0085945), and still further in view of well known prior art (MPEP 2144.03).

Referring to claim 25, the combo of Sherman/Mansfield/Takabatake disclose the method of claim 12.

The combo fails to disclose said processor is also for one of the group consisting of coding at least one bit of said second frame, compressing at least one bit of said second frame, filtering at least one bit of said second frame and performing an application-specific operation on at least one bit of said second frame.

The examiner takes official notice of the fact that the concepts of coding (e.g., spreading, encrypting), compressing, filtering and performing application specific operations are well known in the art.

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the combo as claimed by incorporating the teachings of prior art for the purpose of providing a more secure communication apparatus.

8. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sherman (US Pub. No. 2003/0161340 A1) in view of Dickson (US Pub. No. 2004/0037320 A1) further in view of Takabatake (US 2004/0085945)), and further in view of Chintada et al (US Pub. No. 2002/0118667) further in view of Mansfield et al (US 6301249 B1) and further in view of well known prior art (MPEP 2144.03).

Referring to claim 26, the combo of Sherman/Dickson/Chintada/Mansfield/Takabatake disclose the method of claim 18.

The combo fails to disclose said processor is also for one of the group consisting of coding at least one bit of said second frame, compressing at least one bit of said second frame, filtering at least one bit of said second frame and performing an application-specific operation on at least one bit of said second frame.

The examiner takes official notice of the fact that the concepts of coding (e.g., spreading, encrypting), compressing, filtering and performing application specific operations are well known in the art.

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the apparatus of combo as claimed by incorporating the teachings of prior art for the purpose of providing a more secure communication apparatus.

Response to Arguments

9. Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred A. Casca whose telephone number is (571) 272-7918. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Harper, can be reached at (571) 272-7605. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Fred A. Casca/

Examiner, Art Unit 2617

/VINCENT P. HARPER/

Supervisory Patent Examiner, Art Unit 2617